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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/814,096	03/30/2004	Inching Chen	884.B98USI	7282
21186 7590 11/14/2007 SCHWEGMAN, LUNDBERG & WOESSNER, P.A. P.O. BOX 2938 MINNEAPOLIS, MN 55402			EXAMINER LEE, BETTY E	
			ART UNIT 2619	PAPER NUMBER
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/814,096

Applicant(s)

CHEN ET AL.

Examiner

Betty Lee

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 August 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-11, 15, 17 and 21-27 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-11, 15, 17 and 21-27 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- ☐ Notice of Informal Patent Application
- ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims **1-5, 9-11, and 25-27** are rejected under 35 U.S.C. 102(b) as being anticipated by Petersen et al. (US 5,802,051).

Regarding claims 1 and 25, Petersen teaches a method for multiplexing segmented user voice and data packets into mini-cells comprising generating a set of associated router packets (202 mini-cells) from a function packet (305 user data, voice or data packets) received from a function packet source (user-end), wherein generating the set of associated router packets comprises determining the router packet length from pre-stored router packet length information (810 with trailing pads) that can be different from function to function (see col. 7 lines 38-64; The length depends on the priority which is based on the function of the data.), and wherein each router packet (202 mini-cells) has a router packet data length that is less than or equal to a function packet length (305 user data length to be segmented), and

sending the set of associated router packets (202 mini-cells) to a router (see Fig. 3, Col. 2 lines 16-27).

Regarding claims 2 and 3, Petersen further teaches that a header (401) of a router packet indicates a function packet length (410) that is larger than or equal to the router packet data length (305).

Regarding claims 4 and 26, Petersen further teaches that at the receiving end, removing the router packet header (401) of each packet of the set of associated router packets (400) (see Fig. 4, col. 2 lines 28-51).

Regarding claims 5 and 27, Petersen further teaches that sending the function packet (810) when a quantity of re-assembled router packet data segments after removing headers is equal to the function length (810) (see Fig. 8, col. 7 lines 38-64).

Regarding claims 9-11, Petersen further teaches that selecting a next segment (801) of the function packet (810) with a segment length that is related to the router packet data length (805) and repeat until all of the function packet has been included in the set of associated router packets (removing headers) (see Fig. 8, col. 7 lines 38-64).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

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1. Determining the scope and contents of the prior art.
 2. Ascertaining the differences between the prior art and the claims at issue.
 3. Resolving the level of ordinary skill in the pertinent art.
 4. Considering objective evidence present in the application indicating obviousness or nonobviousness.
5. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).
6. Claims **6-8, 15, 17, and 21-24** are rejected under 35 U.S.C. 103(a) as being unpatentable over Petersen et al. (US 5,802,051) in view of Blasbalg (US 4,771,391).

Regarding claim 6, Petersen teaches all the subject matter of the claimed invention with the exception of storing the packet length information in a table. However, Blasbalg teaches storing packet length information in a table (see col. 7 line 59 – col. 8 line 18). Thus, it would have been obvious to one of ordinary skill in the art to store the packet length information of Petersen in a table as taught by Blasbalg. The motivation for doing so is to make the system more efficient by organizing the length assignments in the form of a table.

Regarding claim 7, Petersen further teaches dynamically adjusting the pre-stored router packet length information (810 with trailing pads) based on system performance measurement by the trailer (815) (see Fig. 8, col. 7 lines 38-64).

Regarding claim 8, Petersen teaches determining router packet length from pre-stored router packet length information (see Table 1) and dynamically adjusting the pre-stored router packet length information (see col. 7 lines 38-64; The trailer is used to dynamically adjust the length.). Petersen teaches all the subject matter of the claimed invention with the exception of determining length information from a table; adjusting length based on system performance measurements; monitoring network performance including latency of transmission of the router packets to the router; and updating values within the router packet length table in accordance with the network performance.

However, Blasbalg teaches determining length information from a table (see col. 7 line 59 – col. 8 line 18); adjusting length based on system performance measurements (see col. 7 line 59 - col. 8 line 18; The lengths in the table correspond to system performance measurements.); monitoring network performance including latency of transmission of the router packets to the router (see col. 7 line 59 - col. 8 line 18; The information flow rate takes into account the latency of transmission); and updating values within the router packet length table in accordance with the network performance (see col. 7 line 59 - col. 8 line 18; The values in table correspond to flow rates.). Thus, it would have been obvious to one of ordinary skill in the art to use the adaptive packet length system of Blasbalg in the system of Petersen. The motivation for doing so is to make the system more flexible to current system conditions.

Regarding claims 15 and 21, Petersen teaches a source adaptor generating a set of associated router packets (see Fig. 2 Boxes 201-203) from a function packet received from a function packet source (see Fig. 2 Box 200), a header (401) of a router packet indicates a function packet length (410) that is larger than or equal to the router packet data length (305) and re-assembling a function packet (305) from the set of associated router packets from the source router to destination router and the destination adaptor (generic SAR 201 and AAD 202 function layers; see Fig. 2) generating a re-assembled function (202 disassembling) packet from the set of associated router packets (by removing headers from the router packets) (see Fig. 4; col. 2 lines 28-51). Petersen teaches all the subject matter of the claimed invention with the exception of determining the packet length information from a table.

However, Blasbalg teaches determining packet length information from a table (see col. 7 line 59 – col. 8 line 18). Thus, it would have been obvious to one of ordinary skill in the art to determine the length of a packet from a table as taught by Blasbalg in the system of Petersen. The motivation for doing so is to make the system more efficient by organizing the length assignments in the form of a table.

Regarding claims 17, 23, and 24, Petersen further teaches sending the function packet (810) when a quantity of re-assembled router packet data segments after removing headers is equal to the function packet length (810) (see Fig. 8, col. 7 lines 38-64).

Regarding claim 22, Petersen further teaches that at the receiving end, removing the router packet header (401) of each packet of the set of associated router packets (400) (see Fig. 4 col. 2 lines 28-51).

Conclusion

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Park et al. (US 2003/0188249), Wang et al. (US 2004/0156354), and De Vleeschauwer et al. (US 7,027,434) are all cited to show systems which are considered pertinent to the claimed invention.

8. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

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the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Betty Lee whose telephone number is (571) 270-1412. The examiner can normally be reached on Monday-Thursday 9-5 EST and alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hassan Kizou can be reached on (571) 272-3088. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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